

# Investigating the Influence of State Capacity on Environmental Compliance in China



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*Kirsteen MacLeod*

[Photo: Polluted river.]

[Jonathan Schwartz](#) clearly remembers his first impression of China 13 years ago. Everything was so grey, crowded, and dirty — polluted air and water, and garbage everywhere, he says.

The grim state of China's environment made a strong impact, and is one factor that prompted Schwartz's recent IDRC-funded study on the link between state capacity — the ability of the Chinese state to enforce regulations in the face of opposition from powerful interest groups — and the enforcement of environmental laws. (Schwartz is an IDRC Doctoral Research Award recipient.)

## **Rationale**

China is so huge, and [its environment] so clearly affects us all, says Schwartz, a PhD candidate in Political Science at the [University of Toronto](#). I was interested in the causal influence of state capacity on compliance with environmental policy at different levels of government.

In China, the current environmental situation is poor and deteriorating. Rapid economic growth, rising living standards, and the burden of providing for 1.2 billion people are all contributing to increased demand for natural resources, and rising industrial production without sufficient environmental controls.

## **Growing commitment**

But the Chinese central government's growing commitment to the environment is expected to bear fruit in future. The environmental protection bureaucracy has increasing influence and status, says Schwartz. It has full ministry status and is attracting better-educated people who are aware they have the central government's support, and are therefore more willing to take on their responsibilities. He adds that the quality of environmental laws and regulations is high for a developing country: China's air pollution and water standards generally meet or exceed World Health Organization guidelines.

China's enforcement of environmental legislation — such as laws governing toxic emissions — is uneven, however. Schwartz's study aimed to clarify the relationship between state capacity and compliance/enforcement by tracing the environmental bureaucratic structure from the central government level down to the level of the factory, identifying points where enforcement deteriorated, or broke down.

### **Levels of jurisdiction**

In China, factories of different sizes are regulated under different levels of government. Thus, a large factory may be under provincial level jurisdiction whereas a smaller factory may be under municipal jurisdiction. But in either case, both the provincial and municipal governments are responsible for enforcing centrally dictated minimum environmental standards.

Schwartz's study began with a quantitative analysis of 10 representative provinces, in which he found a strong correlation between state capacity and environmental compliance. He then focused on state capacity at the sub-provincial level. During 7.5 months of fieldwork in Jiangsu province, he interviewed a variety of people including environmental protection officials, and managers of cement and chemical factories — which he visited to examine their environmental practices.

### **Research conclusions**

Among his preliminary conclusions, Schwartz found that high state capacity appears to ensure greater enforcement of environmental laws. Also, compliance problems seem to arise at the local level, where laws and regulations are weakened by the huge bureaucracy, and the interests of local governments and officials. Moreover, his research indicated that the following variables influence enforcement at the sub-provincial level:

- *The commitment level of leadership.* If the governor and head of the provincial environmental protection bureau are committed, workers in the field know they have enough support to enforce the law. Without support, they may not bother with enforcement, knowing their decisions will be overruled by economic or other interests.
- *The health of the regional economy.* Typically, a Chinese factory that commits a serious pollution infraction is given a firm deadline to fix the problem without punishment, after which it may be ordered to close. But in many cases, factories that fail to clean up the pollution still remain open, or are reactivated. If there's a state enterprise employing 400 people and it's losing money, it is unlikely to spend on environmental controls, explains Schwartz. And if it is shut down, it is a big drain on government — all those people lose not only their jobs, but also daycare, housing, and retirement benefits. Since the government must pick up the cost of these services, the factory is likely to be kept open.
- *The education of environmental protection officials and the public.* Highly educated officials make better enforcers, and are better able to explain the need for environmental protection to factory owners and local government. Public education leads to greater public pressure for environmental controls, which reinforces efforts by the bureaucracy.
- *The distance from the Nanjing-Shanghai corridor.* This is the most culturally, economically, and academically developed region in Jiangsu. The greater the distance from Nanjing, Jiangsu's capital, the fewer and less-well-educated the environmental protection officials, resulting in a drop in compliance.

## Potential applications

Schwartz's research has two potential applications. First, by clarifying the relationship between environmental policy and its enforcement, the study provides a tool for Chinese decision makers, international investors, and environmental groups to tailor investor or donor packages to strengths and weaknesses in particular jurisdictions, he says.

For example, organizations such as the World Bank or the Canadian International Development Agency could use this tool to help them assess the effectiveness of assistance provided to China for environmental projects. It makes it easier to address questions such as: 'Where is the funding most likely to be used effectively?', 'Where are the most serious problems with enforcement?', and 'Do they have the human capital to use the money well, or do we need to send educators?' All these factors are measured by tools that I've developed, and can be employed to help with investment decisions.

## Universal methodology

The second application is broader: while Schwartz's study was conducted in China, on a particular subject (environmental compliance), his methodology could be applied to any developing country, any jurisdiction, or any issue — to help researchers, donor agencies, governments, and investors interact more effectively with the governments of developing countries. Other developing countries face many of the same environmental and other issues as China, so I expect that future research will expand the usefulness of these indicators beyond China's borders, he concludes.

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